



**RIPE NCC**  
RIPE NETWORK COORDINATION CENTRE

# HTTPS in TAL URIs

Tim Bruijnzeels | 16 July 2017 | IETF 99

# Trust Anchor Locator (RFC7730)



```
rsync://rpki.example.org/rpki/hedgehog/root.cer  
rsync://rpki.example.org/rpki/warthog/root.cer
```

```
MIIBIjANBgkqhkiG9w0BAQEFAOCAQ8AMIIBCgKCAQEAvWQL2lh6knDx  
GUG5hbCXvvh4AOzjhDkSH1j22gn/1oiM9IeDATIwP44vhQ6L/xvuk7W6  
Kfa5ygmqQ+xOZ0wTWPcrUbqaQyPNxokui vzyvqVZVDecOEqs78q58mSp9  
nbt xmLRW7B67SJCBSzfa5XpVyXYEgYA jkk3fpme fU+AcxtxvvHB5OVPIa  
BfPcs80ICMgHQX+fphvute9XLxjfJKJWkhZqZ0v7pZm2uhkcPx1PMGcrG  
ee0WSDC3fr3erLueagpiLsFjwwpX6F+Ms8vqz45H+DKmYKvPSstZjCCq9  
aJ0qANT90tnfSDOS+aLRPjZryCNyvvBHxZXqj5YCGKtwIDAQAB
```

# Going Forward



<https://rpki.example.org/rpki/hedgehog/root.cer>  
<rsync://rpki.example.org/rpki/warthog/root.cer>

MIIBIjANBgkqhkiG9w0BAQEFAOCAQ8AMIIBCgKCAQEAvWQL2lh6knDx  
GUG5hbCXvvh4AOzjhDkSH1j22gn/1oiM9IeDATIwP44vhQ6L/xvuk7W6  
Kfa5ygmqQ+xOZ0wTWPcrUbqaQyPNxokuiqvzyvqVZVDecOEqs78q58mSp9  
nbtxmLRW7B67SJCBSzfa5XpVyXYEgYAjkk3fpmefU+AcxtxvvHB5OVPIa  
BfPcs80ICMgHQX+fphvute9XLxjfJKJWkhZqZ0v7pZm2uhkcPx1PMGcrG  
ee0WSDC3fr3erLueagpiLsFjwwpX6F+Ms8vqz45H+DKmYKvPSstZjCCq9  
aJ0qANT90tnfSDOS+aLRPjZryCNyvvBHxZXqj5YCGKtwIDAQAB

# Or even?



<https://rpki.example.org/rpki/hedgehog/root.cer>

<https://rpki.example.org/rpki/warthog/root.cer>

MIIBIjANBgkqhkiG9w0BAQEFAOCAQ8AMIIBCgKCAQEAvWQL2lh6knDx  
GUG5hbCXvvh4AOzjhDkSH1j22gn/1oiM9IeDATIwP44vhQ6L/xvuk7W6  
Kfa5ygmqQ+xOZ0wTWPcrUbqaQyPNxokuiqvzyvqVZVDecOEqs78q58mSp9  
nbtxmLRW7B67SJCBSzfa5XpVyXYEgYAjkk3fpmefU+AcxtxvvHB5OVPIa  
BfPcs80ICMgHQX+fphvute9XLxjfJKJWkhZqZ0v7pZm2uhkcPx1PMGcrG  
ee0WSDC3fr3erLueagpiLsFjwwpX6F+Ms8vqz45H+DKmYKvPSstZjCCq9  
aJ0qANT90tnfSDOS+aLRPjZryCNyvvBHxZXqj5YCGKtwIDAQAB

# On TLS Certificate Validation



- Similar to the considerations in the RRDP document...
- Even if TLS Certificate Validation fails, the Relying Party can still verify that the retrieved certificate matches the **subjectPublicKeyInfo** on the TAL

# My preference



- Move forward to https only
  - Trivial for CAs and easier to scale
  - One less place RPs need to call rsync (ever)
- Let RP use the first the https URI without any sort of validation issues if available
- If only sources with issues are available: retrieve, verify **subjectPublicKeyInfo** and use if the certificate is more recent than the one in cache

# Practical Questions



- Adopt as WG item and discuss further?
- Probably substantive enough to warrant new RFC obsoleting 7730 (6 mentions of rsync, https validation considerations)
- Willing to author, but if current RFC7730 authors want to remain I am fine with that too



# Questions

